Scientist Sees 5 Keys To Cancer Cause, Cure

By ALTON BLAKESLEE
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MINNEAPOLIS, Sept. 14.—Our ways of life hold keys to saving many thousands of humans from cancer, a prominent scientist predicts.

Cancer tolls might well be cut 10 to 15 per cent within 10 years by finding these keys, says Dr. John R. Heller, president of Memorial-Sloan Kettering Cancer Center, New York.

Dr. Heller listed five major fields for study of possible cancer causing agents in the American environment:

Unnecessary exposure to radiation, smoking, air pollution, some of the chemicals added to foodstuffs, and some chemicals handled in industry and manufacturing.

It is generally considered that only 1 per cent of cancers can be blamed on environmental causes, he said in an interview at the fourth National Cancer Conference sponsored by the National Cancer Institute and American Cancer Society.

But, admitting it could be "a wild guess," Dr. Heller said he thinks perhaps 15 to 20 per cent of cancers might be traced to agents in our environment.

Dr. Heller, former head of the National Cancer Institute at Bethesda, Md., foresees big gains from research to find and then eliminate such causes, or finding ways of protecting humans against them.

Such research is admittedly difficult, he said.

Vaccines against cancer do not appear right now to be just around the corner, he said, but he has hopes they may be found. Vaccines depend on finding specific causes, such as viruses, which can be used to stimulate protective antibodies.

Dr. Heller said that within his own lifetime there could come one to three drugs which bring about permanent arrest of some few kinds of human cancers.

The problem of determining whether chemicals added to foodstuffs carry risk of causing cancer poses "a genuine dilemma," he added. This is particularly true for chemicals which produce cancers only occasionally in some species of animals, and under certain conditions.

The controversy over effects of smoking on cancer susceptibility was raised again in the conference keynote speeech by Dr. Michael B. Shimkin, chief of biometry for the National Cancer Institute.

If Americans were to quit smoking tobacco, at least in cigarette form, the mortality from lung cancer could be reduced by 20,000 lives a year, Dr. Shimkin told the conference of 2,000 doctors and scientists.

A spokesman for the tobacco industry quickly countered that Dr. Shimkin had made similar charges before—"even though other scientists in the National Cancer Institute disagree with him."

Edward F. Ragland of Washington, vice president of the Tobacco Institute, added that Dr. Shimkin ignores the "sizable and growing research evidence that does not support his position."

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Big Strides in Cancer Research Foreseen

By PETER VANDERPOEL
Staff Writer

If you contract cancer, your chances of living are one in three today — but they could be one in two.

Dr. Heller

"With our present knowledge, alertness of the medical profession and awareness on the part of the public, we could be saving 50 per cent of our cancer patients," the president of Sloan-Kettering Memorial Cancer center, New York, said at the University of Minnesota today.

Dr. John R. Heller, for 12 years director of the National Cancer institute, thinks this country will see "awfully exciting work in cancer during the next decade."

Much of this progress he expects to be in the environmental area — detecting and eliminating cancer causes in an individual's surroundings.

Like many other speakers and experts attending a three-day National Cancer conference at the university, Dr. Heller hails research advances on many fronts, but tempers optimism with caution.

He thinks the rate of cure in cancer — reported four years ago to have advanced from 25 to 33 per cent—is "perhaps creeping up, in small fractions," toward the 50 per cent goal.

"Assuming reasonable progress," Dr. Heller makes an informed guess that the country will decrease its cancer cases 10 to 20 per cent in the next decade by reducing environmental causes of cancer.

And "if a researcher stumbles onto, for example, a virus as a cause of a common cancer such as leukemia, we would perhaps do better than 20 per cent," Dr. Heller ventures.

Eliminating environmental causes of cancer -- industrial pollution, smoking, radiation and food additives and preservatives, for example—is attacking the disease before it begins, or preventive medicine.

On another front — treating cancer once its contracted—Dr. Heller expects drugs to play a big part.

"In my lifetime, one, two or three chemical agents — singly, in combination or with X-rays—will be major factors in bringing about permanent remission of certain cancers," he predicts.

But, he adds, remission is not curing, but arresting disease, and drugs seem to be effective against only certain kinds of cancer.

Dr. Heller emphasizes that doctors need to know much more about cancer and its life history. "We just don't know what happens if we let it alone."

The nation can use much more money for cancer research, he said. "We've been 'tooling up' for quite some time, and we can use increasing money in a legitimate, orderly fashion better than we could five years ago."

At every turn, Dr. Heller says, researchers find that "we need much more information."

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